Demographics and Conflict

(written April, 2016, by Michael Andregg for the American Intelligence Journal, of the NMIA)

Introduction to an Ancient Paradigm: population growth, environmental degradation, rising death rates and conflicts; exodus, war or genocide.

People have been killing each other since before the beginning of written history, as recorded by the broken bones of people massacred long before writing was invented.[1] One of the quiet reasons for the large scale killings called genocides and wars is demographics, the statistics of birth rates, death rates, growth rates and migrations into or out of territories.[2] This dimension is under-covered by those who focus on the statements or acts of key leaders. Politicians and commanders of war typically describe their reasons in political, religious or military terms, not demographics. But they were also often driven by forces they barely understood and could not control. The Mayan Empire probably fell that way. Easter Island certainly did. And the deserts of North Africa are filled with ruins from cities and empires that thrived … before the forests and farmable land turned into desert. The Kenyans have a saying: "First came forests, then man, then the deserts." Therefore this chapter will show how simple births, deaths and migrations lead to an iron law of biology. This law observes that all living populations eventually achieve equilibrium with their environment, which means birth rates equal death rates and the population neither grows nor declines, or they die. Populations that try to grow forever suffer catastrophic death rates or become extinct. The modern case of Syria disintegrating after 2010 will be considered in some detail, because it also shows how other global factors like climate change can

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[1] *The New York Times* editorial board, "Is Warfare in Our Bones?" January 24, 2016, pg. SR12. An associated article is by James Gorman, "Prehistoric Massacre Hints at War among Hunter-Gatherers" in *The New York Times*, Jan. 20, 2016, page A-7, or http://www.nytimes.com/2016/01/21/science/prehistoric-massacre-ancient-humans-lake-turkana-kenya.html?_r=0 .

[2] Andregg, Michael M. *Seven Billion and Counting: The Crisis in Global Population Growth*, Minneapolis, MN: Twenty-First Century Books (an imprint of Lerner Books), 2014.

trigger chaos.[3] Syria's population growth rate in 2011 was 2.4% per year, but when half of its population was displaced by civil wars and about 6 million fled, its growth rate became sharply negative. At least 450,000 people died by violence alone. This will be followed by a short section on "Human Nature, Nurture, Free Will and War" because that topic has generated much commentary over centuries, with large implications if one accepts the simplistic conclusions that people are either born "innately" warlike, or rather "innately" social and cooperative. Truth is that people can be either one or the other depending on circumstances, and that much neglected factor "free will" or personal decisions. Finally, we close with how a few more complicated demographics like "pyramidal" vs. "columnar" age distributions, and distorted sex ratios may influence the probability of organized armed conflict on earth today and in the future.

An Iron Law of Biology

It has been known for millennia that everything born (on Earth anyway) eventually dies. Therefore, in the long run, birth rates must equal death rates for living populations. But the peculiar history of human populations can make the implications of this simple fact hard to see. Human populations stayed about the same for thousands of years, at near equilibrium with their environments, then started growing almost continuously after agriculture improved and science made huge advances in health care and much more. This leads some people to conclude that growth is inevitable, for humans, and that we do not have to worry about limits.

That is a big mistake, because it turns out that one of the consequences of the iron law is that in the long run, in equilibrium populations, birth rates determine life expectancy. And this means that you can have low birth rates, and low death rates, or high birth rates and high death

[3] Liverani, Andrea. "A Syrian Refugee at COP21" in the World Bank blog, accessible at: http://blogs.worldbank.org/peoplemove/syrian-refugee-cop21

rates (which lead to low life expectancy), but you can not have high birth rates and low death rates for very long without destroying your environment, which greatly increases death rates.

More specifically, in a stable, equilibrium population that neither grows nor shrinks and is uncomplicated by migration flows or unstable age distributions, the life expectancy (LE) is equal to 1000/death rate. So a death rate of 14 per thousand per year, for example, would yield a life expectancy of a little over 71 years (71.3 years = 1000/14). Since this population is in equilibrium, death rates equal birth rates, which as a practical matter means that birth rates determine life expectancies, unless you intend to invade neighbors and take their land or other resources. If so, a militant population can grow more for a while, but it can never escape the iron law of biology. So empires rise, but always fall too, in a short time on the scale of civilizations.

This concept is especially important in our modern world because people all around the world naturally want to control death rates through modern medicine and effective health care. Deliberate birth control programs (much less government mandated birth control like China has) are much more controversial than reducing death rates. But ignoring this factor leads to famine, war and genocides. For another example, consider the state of Minnesota, USA. Census records show that the territory of Minnesota was 99% Native American in 1800, and 1% whites of European descent. A phenomenal reversal occurred in just one century. In 1900, Minnesota's population was 99% white, with the remaining 1% divided about equally between Native Americans and blacks.[4] The biggest single factor was immigration of millions of people fleeing problems in Europe for opportunities in America, which included occupying most of the land of Minnesota and displacing much of the native population by war (in 1862) and thousands of smaller violent encounters.

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[4] Primary census data for Minnesota is obtainable from the Minnesota Population Center. This was originally a department of state government now housed at the University of Minnesota, https://www.ipums.org/ .

Environmental Conflict and Mass Migrations: Syria as an example

Damascus, the capitol of modern Syria, is one of the oldest cities in the world. But Syria is a nation that may not survive another ten years much less 8-10,000. Recent governments were always authoritarian and sometimes brutal. For example the current leader's father, Hafez al-Assad, killed about 20,000 people in one city called Hama suppressing rebellion in 1982. Things were going pretty well for the son and current leader, Bashar al-Assad, and for the country which had good education and professional skills, until things started to fall apart in the 21st century. Let us look briefly at how demographics matter there.

In 2011, the United Nations[5] and the CIA[6] reported that Syria had a population growth rate of 2.4%, which means doubling in about 30 years. It is very hard to feed a population that doubles every 30 years, even if the land is fertile and vast. The entire earth's population also grew, from 1 billion in 1804 to over 7 billion in 2011. This used the best farmland, and growth in use of fossil fuels led to global warming and climate change. The worst drought in the history of weather record keeping in Syria came, making much of its farm land infertile. This led to a minimum of 1.5 million of Syria's then 23 million people to migrate from farms into cities seeking opportunity. But the young Assad could not employ all of the young men and women already coming of age in cities like Damascus. And being dictatorial, he was keeping the best opportunities for members of his minority, Alawite group, and also minority Christians who supported him, because the son was known to protect minorities in a Middle East better known for exterminating them. So protestors were frustrated, while agriculture failed.

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[5] United Nations Demographic Yearbook. 2013 is the latest published, accessible at http://unstats.un.org/unsd/demographic/products/dyb/dyb2013.htm

[6] The CIA's *World Factbook*, has basic demographic data for all countries available, by year, including age distributions and enormous amounts of other practical information. The *World Factbook* is published annually in book and on-line forms by the U.S. Central Intelligence Agency.

High growth rates also result in "pyramidal" age distributions where the young greatly outnumber the old. In Syria this meant that half of the population was less than 22 years old in 2011. Pyramidal age distributions have especially bad consequences when millions of teen aged males cannot find good job opportunities, or farmland to support a family. Demagogues abound who will try to focus this frustration on neighbors, blamed for all problems. Peaceful protests began in Syria in about 2011, but Assad could not create jobs or good farmland out of dry air, so protests were repressed in the 'normal,' authoritarian ways. But desperate migrants kept coming into the cities, where desperate teens were watching their dreams of good jobs and families evaporate. So the protests did not stop, and violence escalated until complex civil wars emerged, involving many factions and outside groups that killed at least 450,000 people by violence and displaced about half of Syria's people. About six million left the country entirely, a million to Lebanon, over 3 million to Turkey, 635,000 to Jordan, and another million passed through these border countries, to other destinations including Europe. This puts huge strains on destination countries even if major donors pay to feed people in refugee camps, which is not always the case. True settlement and assimilation takes much more money, and time.

By 2015, a desperate migration began[7] where over one million refugees fled toward Europe, on foot and in tiny boats, not all from Syria but many from other desperate war zones enduring similar underlying issues, like Iraq and Afghanistan. This terrifies some Europeans, and others. This is how population growth turns into population pressure, which can turn into a catalyst for either great positive changes, or global war depending on the details of conflict and leadership that many scholars focus on.

[7] UN High Commissioner for Refugees, "UNHCR Syria Regional Refugee Response/Total Persons of Concern," accessed at: http://data.unhcr.org/syrianrefugees/regional.php on Jan. 22, 2016.

Human Nature, Nurture, Free Will and War

The history of humankind includes at least 3,000 wars and many times more riots, insurrections, police-state repressions like the 20,000 killed in Hama, Syria, or tens of millions killed in Stalin's Soviet Union and Mao's China, and millions of Native Americans displaced by surging white populations since 1492, few of which are included in technical definitions of war.

This bloody history has generated much commentary for thousands of years on whether war is inevitable, or not. Such scholars often focus on human nature, and whether humans are "genetically" or "innately" destined to war. The most quoted passage in a previous work by this author "On the Causes of War" [8] concluded that: **War is <u>not</u> inevitable. Human conflicts are inevitable, but war is not. War is a social institution. Institutions have been created by people. Therefore they can be changed.**

This is not the place for a technical discussion of behavior genetics, but the bottom line deserves some emphasis. Most scholars talk about "nature" and "nurture" as though these were the sum of all causes, but there are assumptions in that paradigm that fall apart when examining complex, human behavior traits. War is an excellent example. What is missing from the simple nature/nurture paradigm, is the clearly demonstrated ability of people to decide for themselves whether they will participate in war, or work for peace, or etc. This applies to top leaders who actually make the decisions and give the orders necessary to start wars, as it does to citizens.

The big problem with "inevitability" is that it traps people who feel powerless, and excuses others who like, want, and sometimes start wars for personal profit or glory. So I ask the reader to go back two paragraphs and reread the bottom line conclusions on inevitability.

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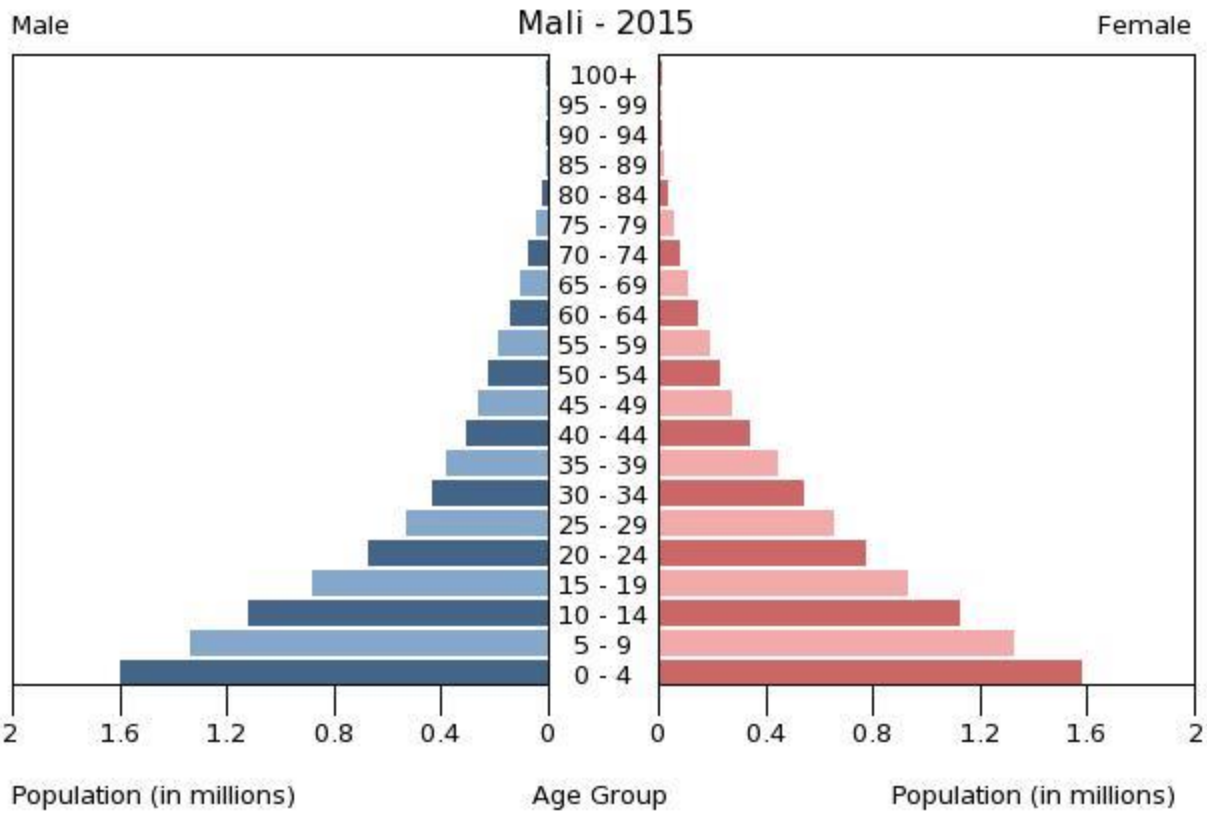
[8] Andregg, Michael M. <u>On the Causes of War</u>, St. Paul, MN: Ground Zero Minnesota, 1997, 2001. Chapters on Population Pressure (pp 62-73) and Human Nature, Nurture, Free Will and War (pp 26-29) are especially relevant here.

Age Distributions, and other oddities like distorted sex ratios

We have already mentioned age distributions so it is time to look at two. The first is a "pyramidal" age distribution from a fast growing population in 2015, Mali. The second is a "columnar" age distribution from a near zero growth population in Northern Europe (Sweden). The former have high growth rates, low average age, low average life expectancies, and severe "momentum of growth" since so many young are entering reproductive ages. Columnar age distributions yield low growth rates, higher average ages and much better life expectancies.

Mali is a very poor country in an area of endemic armed conflicts and spreading deserts. Sweden is a very rich country in an area of no wars (since 1945) and no deserts. Mali has very high birth rates, correspondingly high death rates and low life expectancy, with Sweden the reverse. More specifically, in 2015 the CIA reported [9] (based largely on UN demographic data) that Mali's birth rate was 45/thousand, from a total of 17 million people, a growth rate of 2.98% per year (doubling every 23.5 years) a median age of 16.1 years, a life expectancy of 55.34 years, and Mali was exporting people to neighbors at 2.56 per thousand each year by emigration.

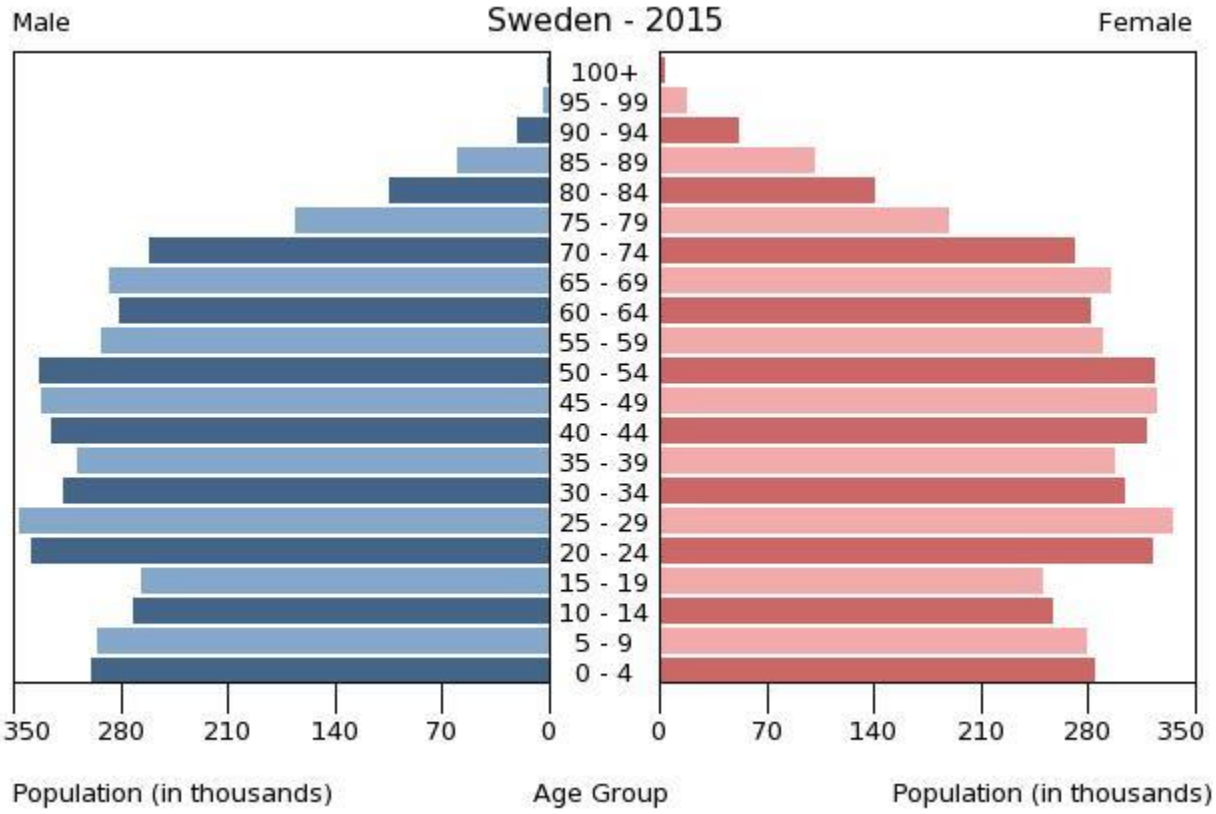
[9] All material here, birth rates, growth rates, migration rates, life expectancies, two age distributions of Mali and Sweden, and corresponding text on what age distributions (or population pyramids) mean are from the CIA's *World Factbook* of 2015. Much (not all) of their primary demographic data comes from the UN Demographic unit, but the UN does not have enough staff to compile an annual report like the CIA does.



Caption for both age distributions, from the CIA's World Factbook: "A population pyramid (or age distribution) illustrates the age and sex structure of a country's population and may provide insights about political and social stability, as well as economic development. The population is distributed along the horizontal axis, with males shown on the left and females on the right. The male and female populations are broken down into 5-year age groups represented as horizontal bars along the vertical axis, with the youngest age groups at the bottom and the older at the top. The shape of the population pyramid gradually evolves over time based on fertility, mortality, and international migration trends."

For contrast, Sweden's population was 9.8 million, with a birth rate of 12/thousand, a growth rate of .8% per year, a median age of 41.2 years and a life expectancy of 82 years. And Sweden is not exporting people, rather attracting them. Its net immigration rate in 2015 was 5.42

migrants per year per thousand population. So Sweden has lower birth rates, smaller population, a much longer life expectancy, and is a place people immigrate to, rather than emigrate from.



We mention one more complication here because it MAY influence the probability of wars. This is distorted sex ratios like the fact that China today has about 120 boy babies for every 100 girl babies reported. This is not natural, but a result of selective abortions and even killings of baby girls. Partly this is an unintended result of a once very strict "One Child" policy China used to restrain its population growth, end periodic famines, and allow prosperity. But China is not alone; India also has a severely distorted sex ratio among the young. It is possible, but not proven, that having many teen aged males who will never form a traditional family due to such differences in numbers may lead to more urban crime and even more aggressive foreign policies. These are other problems demographers worry about when considering the fate of nations.

Conclusions

Demographics are destiny. This overstatement captures a powerful partial truth. Of course there are many other factors that determine the fates of nations and people, including the personalities of leaders, historical and geopolitical context, military factors, economics, water, philosophy and all the rest. Life is complicated, and the phenomena of wars and other organized armed conflicts are hyper-complicated because they involve institutions as well as people, and factors like demographic variables, climate (especially changes) etc. as this chapter has shown.

So demographics do not determine ALL of destiny, just some. But these powerful forces are typically invisible, or drowned out by endless discourse on political, military and religious perspectives. We have tried to show here how birth rates also have powerful effects on political, military and even religious realities on earth today. We will close with one other complication from behavior genetics and anthropology.

Humankind evolved in a context of many small groups that depended on each other for survival, and fed mainly through hunting and gathering rather than settled agriculture. There were lots of other predators about, like real lions, tigers and bears, and people moved a lot because hunters and gatherers typically use up most of the food in any one area over time. Therefore, our ancestors encountered other groups of people as well as other predators, on the move seeking new resources. Sometimes they fought and sometimes losers were massacred. This resulted in an almost universal double standard of in groups vs. out groups that has been studied by sociologists and psychologists as well as the other fields mentioned. With regard to war and conflicts similar to war, that in group/out group thing has this, specific consequence.

We have endured thousands of years of smaller, weaker or merely gentler people being wiped out by more aggressive neighbors. This reinforces the ancient paradigm of loyalty to family, clan or tribe and a certain reflexive aggressiveness if large numbers of strangers begin to appear. Threats are implied (by some) before they are real, and strangers are often considered barbaric and dangerous before they are even known.

For millennia we, as a species, could endure the endless wars, genocides and lesser conflicts that resulted. But weapons of mass destruction (WMDs) have changed all that. Actually wiping out entire populations has become much less practical and considerably more dangerous. No matter how barbaric "they" are, they are people too, with eyes to see and brains that can make weapons for themselves. Therefore human civilization, the global civilization emerging from ancient ones now clashing vigorously, is rethinking how to achieve security in an age of WMDs and grave changes in the natural environment with large effects on economic growth and military power. It is a time of great peril, and as the Chinese say, great opportunity.

What you do about all that is up to you.

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